CLAIMS

1. A pinch valve assembly comprising:

a single piece block comprising a plurality of internal channels within the block for distribution of fluids, each of the internal channels comprising an embedded sealable barrier;

the single piece block further comprising a plurality of outlets for connection of one or more fluid conduits to the channels.

2. The pinch valve assembly of claim 1 further comprising one or more openings for connection of one or more compressor elements to the internal channels.

3. The pinch valve assembly of claim 2 configured such that a compressor element connected to one of the one or more openings is moveable towards and through the opening for compression of the embedded sealable barrier in one of the internal channels to seal the internal channel.

4. The pinch valve assembly of claim 3, wherein the embedded sealable barrier is a compressible surface internal to the assembly and the compressor element is configured to push the compressible surface into the internal channel to seal the internal channel.

5. The pinch valve assembly of claim 3, wherein the wherein the embedded sealable barrier is a compressible fluid conduit internal to the assembly and the compressor element is configured to push directly onto the surface of the compressible fluid conduit to seal the internal channel.

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6. The pinch valve assembly of any of claim 3 to 5 wherein, in use, the compressor element is moveable between an open position wherein an embedded sealable barrier in one of the plurality of channels is uncompressed to allow for fluid flow in the channel and a closed position wherein an embedded sealable barrier in one of the plurality of channels is compressed to prevent fluid flow in the channel.

7. The pinch valve assembly of any of claims 3 to 6 wherein the single piece block is a rectangular cuboid shape comprising the plurality of outlets for connection of one or more fluid conduits to the internal channels on a first, second and third surface and the plurality of openings for connection of one or more compressor elements to the internal channels on a fourth surface.

8. The pinch valve assembly of any preceding claim wherein the single piece block comprises a disposable polymer block.

9. The pinch valve assembly of any preceding claim wherein the embedded sealable barrier is comprised of a silicone material.

10. The pinch value assembly of any preceding claim wherein the internal channels are configured for sterile distribution of fluids.

11. The pinch valve assembly of claim 10 wherein the internal channels are sterilised via a plasma coating.

12. The pinch valve assembly of any preceding claim wherein the single piece block is further configured to be connectable to an additional single piece block.

13. The pinch valve assembly of claim 12 wherein the single piece block is connected to one or more additional single piece blocks to form a modular assembly.

14. The pinch valve assembly of any of claims 3 to 13 wherein the compressor element is configured to be manually actuated.

15. The pinch valve assembly of any of claims 3 to 13 wherein the compressor element is configured to be pneumatically actuated.